

NASA TECH BRIEF

Marshall Space Flight Center



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Manufacturing Contamination Prevention Handbook

A manufacturing management discipline handbook concerning contamination prevention has been prepared by a major corporation that may present principles and guidelines which can be adopted for industrial and commercial manufacturer usage. Realizing the necessity and responsibility to produce a contaminant-free product, the manufacturing management section of the company initiated and established many disciplines, rules, and procedures concerned with contamination prevention. Some of these affect the direct actions of all manufacturing personnel in all areas of the manufacturing operation.

The handbook categorizes the contamination prevention program into three basic aspects; initial prevention of contamination, control of the amount of contamination that is unpreventable, and detection and elimination of contamination that has eluded all prevention and control safeguards.

To successfully perform the functions of contamination prevention, all measures economically and humanly feasible are utilized to prevent the contamination of hardware and material from the beginning. Assurance must be made that the material used is the correct material specified and that the processes are correct for the material. The environment in which the product is manufactured must be maintained in a manner such that the product has the required degree of reliability when the manufacturing operation is completed.

The activities of manufacturing related to aspects of the contamination prevention program for which other sections have prime responsibility are extremely important. Although other sections are assigned the primary responsibility for items that affect the output of the

manufacturing organization, it is the responsibility of manufacturing to ensure that the other sections perform their functions. Thus, manufacturing becomes the sentinel for such functions as engineering design, facilities and industrial engineering, maintenance, and quality control. Manufacturing must depend on the operation of these other functions to function properly itself. As a result of this dependency on other functional organizations, the disciplines for contamination control were initiated and implemented by manufacturing management. This ensures that manufacturing performs its function, and that the supporting functions are also maintained.

Notes:

1. Information contained in this handbook may be of interest to all types of industrial and commercial manufacturers.
2. Requests for further information may be directed to:
Technology Utilization Officer
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